REMARKS

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1-3, 14, 15, 19, 20, 22 and 26 are currently pending.
- Claims 1, 14, 20, and 22 are amended herein.

Support for the amendments to claims 1, 14, 20, and 22 is found in the specification, as originally filed, at least at paragraphs [0018] and [0030]. The amendments submitted herein do not introduce any new matter.

Claims 1-3 Recite Statutory Subject Matter Under § 101

Claims 1-3 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

Applicant has explicitly defined "computer storage medium" to *exclude* signals and carrier waves. In paragraph [0055], which defines "computer storage media," Applicant states:

> "Computer storage media" include volatile and non-volatile, removable and non-removable media implemented in any method or technology for storage of information such as computer readable instructions, data structures, program modules, or other data. Computer storage media includes, but is not limited to, RAM, ROM, EEPROM, flash memory or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which may be used to store the desired information and which may be accessed by a computer

In contrast, Applicant defines "communication media" in paragraph [0056] to include carrier waves and signals. While both computer storage media and communication media are examples of computer-readable media (see paragraph [0054]), Applicant clearly distinguishes between them by providing separate definitions that do not overlap in their scope. Also, by previously amending claim 1 from reciting "computer-readable media" to "computer storage media," Applicant is clearly narrowing the claim to exclude communication media such as carrier waves and signals. Thus, if the claim language is interpreted in light of Applicant's Specification and the explicit definitions provided therein, then "computer storage media" must be interpreted as excluding signals.

Applicant also respectfully requests that the Examiner point to the legal basis/authority used by the Examiner for requiring the Applicant to add "non-transitory" to the claims.

For at least the above reasons, Applicant respectfully requests that the § 101 rejection of claims 1-3 be withdrawn.

Claim 20 Complies With § 112, 1st Paragraph

Claim 20 stands rejected under 35 U.S.C. § 112, ¶ 1, as allegedly failing to comply with the written description requirement. Applicant respectfully traverses this rejection.

More specifically, the Examiner notes that the terms "first generating means," "second generating means," "registering means," and "third generating means" lack sufficient support to meet the written description requirement. In response, Applicant

directs the Examiner's attention to: paragraph [0033] of Applicant's specification, which describes an application signaling generator 130 that performs the acts claimed as being performed by the first generating means; paragraph [0035] of Applicant's specification, which describes a CRID generator 150 that performs the acts claimed as being performed by the second generating means; paragraph [0035] of Applicant's specification, which describes a RAR generator 152 that performs the acts claimed as being performed by the registering means; and paragraph [0047] of Applicant's specification, which describes an application signaling generator 130 that performs the acts claimed as being performed by the third generating means.

Accordingly, Applicant respectfully submits that the claimed means find sufficient support in Applicant's specification to meet the written description requirement, and Applicant requests that the rejection of claim 20 be withdrawn.

Cited Documents

The following documents have been applied to reject one or more claims of the Application:

- **Carlucci:** Carlucci et al., U.S. Patent Application Publication No. 2004/0015999
- **MacInnis:** MacInnis, Alexander G., U.S. Patent Application Publication No. 2003/0028899
- **Eyal**: Eyal, Aviv, U.S. Patent No. 6,484,199

Claims 1-3, 14, 15, 19, 20, 22 and 26 Are Non-Obvious Over Carlucci in View of MacInnis in Further View of Eyal

Claims 1-3, 14, 15, 19, 20, 22 and 26 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Carlucci in view of MacInnis in further view of Eyal. Applicant respectfully requests reconsideration in light of the amendments presented herein.

Independent Claim 1

Claim 1, as amended herein, recites, in part:

> ***receiving*** from a content provider, ***by head-end equipment using an extended asset definition interface*** a digital television (DTV) application and its associated metadata, wherein the extended asset definition interface specifies a data structure including the DTV application and metadata attributes consisting of:
>
> an application identifier field for identifying the DTV application;
>
> an originator identifier field for identifying an originator of the DTV application;
>
> ***an application-type field for indicating a type of the DTV application*** and specifying a runtime environment needed to run the DTV application;
>
> a profile field for indicating a minimum profile of a system on which the DTV application will execute;
>
> a visibility field for indicating the degree of control a user has over the DTV application;
>
> a permission field for denoting "sandbox" security permission of the DTV application; and
>
> a rating field for indicating a rating of the DTV application;

generating, by the head-end equipment, an application information table for conveying application signaling information to a DTV receiving unit, the application information table being generated based on the associated metadata;

generating, by the head-end equipment, a content referencing identifier for the DTV application;

registering, by the head-end equipment, an authority record with an authority to enable the DTV receiving unit to resolve the content referencing identifier;

generating, by the head-end equipment, a data grouping having the application information table and the content referencing identifier;

sending, by the head-end equipment, a transmission to the DTV receiving unit, wherein such transmission comprises the data grouping, whereby the application signaling information is used by the DTV receiving unit to discover and launch the DTV application,

wherein the head-end equipment, the content provider, and the DTV receiving unit are each separate and distinct from each other, and

wherein the extended asset definition interface is defined to correspond to information that an application signaling generator of the head-end equipment needs to generate the application information table

In rejecting claim 1, the Examiner cites paragraphs 50-52 of Carlucci as describing the receiving of data, by a head-end, from a provider. No mention is made in those passages, however, or in any other passages of the cited documents, of "receiving … using an extended asset definition interface", as is claimed in amended claim 1. Rather, data is simply described as being received and no reference is made to any sort of specific interface, much less to the claimed extended asset definition interface. The Examiner equates the claimed extended asset definition interface to the receiver 78 in Fig. 5a of Carlucci. The receiver 78 is further discussed in paragraph 87

of Carlucci as being one or more satellite dishes and as coupling received signal streams to a head-end processor. No mention is made, however, of the receiver 78 "specifying a data structure." Because claim 1 requires the extended asset definition interface to specify a data structure, the receiver 78 of Carlucci cannot possibly teach or suggest the extended asset definition interface. The other cited documents, which are cited for different features of claim 1, do not cure this deficiency. And because neither Carlucci nor any other cited document teaches or suggests the claimed extended asset definition interface, the combined cited documents simply cannot teach or suggest using such an interface to perform the act of receiving.

The Examiner then proceeds in the rejection to cite various portions of Carlucci as disclosing the fields of the data structure specified by the claimed extended asset definition interface, such as the application identifier field, etc. The portions cited as disclosing these fields, such as paragraph 56 of Carlucci, describe data included in the transmitted content stream received by the head-end of Carlucci. They do not, however, describe fields of a data structure specified by an extended asset definition interface. As mentioned above, Carlucci simply does not describe any such extended asset definition interface or data structure specified by that interface.

Also in rejecting claim 1, the Examiner points to the PIC of paragraph 56 of Carlucci as describing the "application-type field for indicating a type of the DTV application." The PIC is described as identifying a program or program segment. No mention, however, is made of the PIC or anything else which identifies a *type* of the DTV application. Applicant made this same point in the previous response and the Examiner has again cited the same paragraph of Carlucci without addressing

Applicant's argument. Applicant respectfully requests that the Examiner address this argument.

Additionally, in rejecting claim 1, the Examiner points to paragraphs 26 and 27 of MacInnis as teaching that, "the extended asset definition interface is defined to correspond to information that an application signaling generator of the head-end equipment needs to generate the application information table." The Examiner further states that these passages describe, "using received metadata from the content provider to generate tables at the head end." Paragraphs 26 and 27, however, make no mention of generating tables at the head end. Rather, they merely mention receiving such tables. And since paragraphs 26 and 27 do not mention generating tables, they consequently cannot (and do not) mention the use of received metadata from a content provider. In fact, no mention is made of metadata from a content provider anywhere in MacInnis.

Further, even if MacInnis were to suggest, "using received metadata from the content provider to generate tables at the head end", this still would not teach or suggest the claimed recitation which, again, is: "the extended asset definition interface is defined to correspond to information that an application signaling generator of the head-end equipment needs to generate the application information table." No mention is made of anything that teaches or suggests an extended asset definition interface, or the defining of such an interface based on information needed to generate a table. Simply describing a table of requirements, as MacInnis does, is not sufficient to suggest the defining of an interface corresponding to that table. Thus, MacInnis simply does not teach or suggest, "the extended asset definition interface is defined to correspond to

information that an application signaling generator of the head-end equipment needs to generate the application information table", as claimed in claim 1.

For at least the reasons presented herein, the cited documents do not teach or suggest all of the features of claim 1. Accordingly, Applicant respectfully requests that the Office withdraw the 103 rejection of claim 1.

Independent Claims 14, 20, and 22

Claims 14, 20, and 22 are patentable over the cited documents at least for reasons similar to those provided above with regard to claim 1.

Dependent Claims 2, 3, 15, 19, and 26

Claims 2, 3, 15, 19, and 26 each ultimately depend from one of independent claims 1, 14, and 22. As discussed above, claims 1, 14, and 22 are allowable over the cited documents. Therefore, claims 2, 3, 15, 19, and 26 are also allowable over the cited documents of record for at least their dependency from an allowable base claim, and also for the additional features that each recites.

Accordingly, Applicant respectfully requests that the Office withdraw the 103 rejection of claims 2, 3, 15, 19, and 26.

Conclusion

For at least the foregoing reasons, all pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application.

If any issues remain that would prevent allowance of this application, **Applicant requests that the Examiner contact the undersigned representative before issuing a subsequent Action.**

Respectfully Submitted,

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